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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,008	09/18/2006	Imre Nehez	VT-0003	3124
7590 07/09/2009 MILLEN, WHITE, ZELANO & BRANIGAN, P.C. Suite 1400 2200 Clarendon Boulevard Arlington, VA 22201			EXAMINER GREENE, JASON M	
			ART UNIT 1797	PAPER NUMBER
			MAIL DATE 07/09/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/599,008

Applicant(s)

NEHEZ, IMRE

Examiner

Jason M. Greene

Art Unit

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-14 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date 3/9/07
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Specification

1. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claims

2. The claims appear to be based on a literal translation from a foreign language.

The Examiner suggests Applicants rewrite the claims in proper idiomatic English.

3. With regard to claim 4, the Examiner suggests Applicants rewrite the word "hydrogene" in line 3 as "hydrogen".

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-4, 7, 10, 11 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claims 1, 3, 7, 10, 11 and 12, a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render

a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 1 recites the broad recitation "gas container spaces" in line 3, and the claim also recites "in given case airships, lifting balloons and hosecontainers" in line 3 which is the narrower statement of the range/limitation. Claim 3 recites the broad recitation "suitably adapted gas handling methods and equipment" in lines 4-5, and the claim also recites "or in another way, for example by piping then into a fuel cell" in line 5 which is the narrower statement of the range/limitation. Claim 7 recites the broad recitation "there is physical, respectively chemical action applied and/or included" in line 2, and the claim also recites "in given case gas absorption" in line 3 which is the narrower statement of the range/limitation. Claim 10 recites the broad recitation "separating methods" in line 3, and the claim also recites "(disjunctive separation), for example adsorption, chemo-sorption, perm-selective membranes, by liquefaction, fractional distillation, etc." in lines 3-5 which are the narrower statements of the range/limitation. Claim 11 recites the broad recitation "a method influencing gas diffusion" in line 2, and the claim also recites "e.g. gas absorption inhibition and/or cavitation filtering of electrokinetics microstructure" in lines 2-3 which is the narrower statement of the range/limitation. Claim 12 recites the broad recitation "balloons filled with diffusible gas filling" in line 3, and the claim also recites "for example airships, lifting

balloons and hosecontainers" in lines 3-4 which is the narrower statement of the range/limitation.

Claim 1 recites the limitation "the layers of the material-membrane" in lines 5-6. There is insufficient antecedent basis for this limitation in the claim.

Claim 2 recites the limitation "the multi-layer bordering structure" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Regarding claims 3, 10 and 11, the phrase "for example" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 3, the phrase "well-known" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "well-known"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim 4 recites the limitation "the null-diffusion envelope" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the phrase "Envelope structure according to claim 1" in line 1, but claim 1 is directed to a method. Thus it is unclear what claim 12 is intended to encompass.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 4, 5, 7-9 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Gembe (US 3,185,411).

Gembe discloses a method for handling gas diffusion of airships to clean gases diffused through envelopes of airships comprising the envelope of gas container space is appropriately structured in addition to passive separation by one or more separator spaces (b), and in the envelope an active method (the pump i) is operated to influence gas diffusion, wherein three separator spaces (b) are provided (see Fig. 4) and the lift space (c) is filled with helium, wherein physical action (the pump i) is applied to influence gas diffusion, wherein there is vacuum gas compound extraction (negative pressure) in the separator space(s), wherein there is a method influencing gas diffusion

(material selection) applied to at least one layer of a membrane forming the envelope in Figs. 4-7 and col. 9, line 47 to col. 10, line 37.

8. Claim 12 is rejected under 35 U.S.C. 102(b) as being anticipated by Gembe (US 3,185,411).

Gembe discloses an envelope structure for handling gas diffusion of airships wherein the envelope structure is filled with diffusible gas, comprising a diffusion free envelope that is a multi-layer gas isolation envelope, which has inner (between a and b) and outer (between b and a) isolation layers, and among the layers there is a minimum of one gas isolation separator space (b) in Figs. 4-7 and col. 9, line 47 to col. 10, line 37.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gembe (US 3,185,411).

Gembe does not disclose multiple separator spaces and isolation layers in series, but it would have been obvious to one of ordinary skill in the art to provide multiple separation spaces in that duplication parts for a multiplied effect is merely a choice of design. See *St. Regis Paper Co. v. Bemis Co., Inc.*, 193 USPQ 8, 11.

Allowable Subject Matter

11. Claims 2, 3 and 10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

12. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. The following is a statement of reasons for the indication of allowable subject matter:

With regard to claims 2, 3 and 10, the prior art made of record does not teach or fairly suggest the method of claim 1 wherein gases that diffuse into the separator space are separated from the gas mixture and forwarded back to their sources.

With regard to claim 6, the prior art made of record does not teach or fairly suggest the method of claim 1 wherein electrical gas diffusion inhabitation is applied to at least one layer of a material membrane forming the separator space.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Goodey, Lee, Czamecki et al., Bouchilloux et al., Mehra, Auvil et al., Stoner et al. and GB 2 196 920 A references disclose similar systems.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Greene whose telephone number is (571) 272-1157. The examiner can normally be reached on Monday - Friday (9:00 AM to 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason M. Greene
Primary Examiner
Art Unit 1797

/Jason M. Greene/
7/2/09

jmg
July 2, 2009